REMARKS

The Examiner's Office Action mailed on a January 29, 2004 has received and its contents carefully considered.

Claims 1-20 are pending in this application. Claims 1, 10, 13-14, 16 and 18-20 are amended herein. Claim 1, as amended, remains the sole independent claim.

In the Action, the Examiner objects to claims 10, 13 and 16 as being duplicative of claims 4, 5 and 6, respectively. The duplication is a result of unintentional clerical errors made in the course of preparing the preliminary amendment filed with the application on January 17, 2001. The dependencies in claims 10, 13 and 16 have been corrected to eliminate the duplication. The dependencies in claims 14 and 18-20 have also been amended for consistency. The Examiner's review of these amendments and withdrawal of the claim objections is respectfully requested.

Claims 1-5, 7-13, 17 and 19 stand rejected under 35 USC §102(b) as being anticipated by the Newman-Wolfe et al. reference entitled "MACE: A Fine Grained Concurrent Editor" Except to the extent addressed by the amendments herein to the rejected claims, the rejection is respectfully traversed.

With respect to claim 1, the Examiner points to Newman-Wolfe as disclosing a receiving, accumulating and distribution means for operation content to and from the plurality of computers. The Examiner specifically points to Figure 1 on page 247 of Newman-Wolfe as showing the structure of the client (EW)/server (EM) architecture. The Examiner cites Newman-Wolfe, page 249, paragraph 2, which states:

> "Each file that is edited is associated with an EM [Editor Manager]. It is the server that controls the edit session. Since the EM is the bottleneck of the topology we have designed it to carry a minimum process load. The EM is not involved in the actual text edit. It is responsible for the paging mechanism, granting of locks and message multicasting."

The Examiner also cites page 249, paragraph 3, which states:

"The EW [Editor Window] is the process that the user invokes to access MACE. It generally runs on the local machine and is replicated at each user location."

Anticipation, under 35 USC §102, requires that each element of the claim in issue be found in a single prior art reference. Although anticipation requires only that the claim under attack "read on" something disclosed in the reference, all limitations of the claim must be found in the reference, or "fully met" by it.

While the system in Newman-Wolfe may have a similar architecture to that of the present invention, it is respectfully submitted that Newman-Wolfe fails to disclose all of the features recited in claim 1. Specifically, Newman-Wolfe fails to disclose that the accumulating means in the server EM assigns order in order of receipt to the received operation content, i.e., the results of user initiated image selecting and editing operations, and that the distribution means distributes this accumulated operation content to the plurality of computers in order of accumulation, as claim 1 requires. Rather, the MACE system described in Newman-Wolfe uses locking as the means of concurrency control. The locks logically partition the file enabling MACE to have a fine editable granularity. When a lock is first requested at one of the user computers EW, it consults the local information on the possible collisions between locks. If no collisions are present, the request is sent to the EM. The EM checks for collisions at a central lock table and grants or refuses the requested lock. If the lock is granted, it is broadcast to all editors that are affected (Newman-Wolfe page 251, paragraph 3). MACE grants priority to locks on a first-come-first-served basis (Newman-Wolfe page 252, paragraph 1), and does not rely on the order of accumulation of image selection and editing inputs from users to achieve concurrency, as does the present invention. It should also be noted that MACE only addresses the sharing of text editing results, while the present invention advantageously allows sharing of event occurrence, such as pushbuttons, and also sharing of image selection information.

Claim 1 is amended to make it clear that the operations carried out by the user are those related to the selecting and editing of the shared image.

With regard to claim 2, the Examiner argues that the assignment of order by the accumulating means is inherent in a system that accumulated and distributes operation content to a plurality of computers. Even if true, it is respectfully submitted that Newman-Wolfe fails to teach or suggest accumulation of the operations received from the plurality of computers in such manner as to assign order in units of elements

comprising content of the displayed image, as claim 2 requires. In other words, MACE is a plain text editor and is not capable of simultaneously processing changes to different elements of the displayed image by assigning to each element a unique ID, in the manner described, for example, in the application at page 21, lines 1-15. Rather, MACE processes each locked section of text in sequence (see Newman-Wolfe, page 245, paragraph 6).

Regarding claim 3, the Examiner points to Newman-Wolfe, page 251, paragraph 4, which states that: "If the locks are granted, if they are broadcast to all editors that are affected". The Examiner argues the identification information is inherently implied in a system that broadcasts only to those clients that are affected.

The applicant respectfully disagrees with the Examiner's argument. In Newman-Wolfe, the term "editors that are affected" refers to those users who are scrolled to pages affected by the granted locks. In all cases, that includes the computer sending the lock request to the server. There is no suggestion in Newman-Wolfe of distinguishing in distribution between "all of the computers connected via the network" and "all of the computers connected via the network except the computer sending to the synchronization server." In the present invention, that distinction serves to avoid repetition of a non-text operation, such as pressing a button, for example (see application at page 28, line 19 through page 29, line 17). It would serve no purpose in MACE.

With respect to claim 4, the Examiner points to Newman-Wolfe, page 251, paragraph 1, which states that "[t]he changes are sent to the EM only when the user saves his edit" and "[t]hus the EM is not flooded with each keystroke from all editors." The Examiner argues that this corresponds to the means for delaying transmission of operation content to synchronization server, recited in claim 4. The applicant respectfully disagrees.

Claim 4 specifically requires "means for delaying transmission of operation content to synchronization server according to content of the operation" (emphasis added). The MACE system, as described in Newman-Wolfe, is simply a text editor, so that only one type of content, i.e. revised text, would be transmitted to the server EM. On the other hand, operation content in the present invention may be text, events (e.g.

pushbuttons) or document identification, to be shared among the plurality of computers connected to the synchronization server. In this context, applying delay selectively to different types of operation content may serve a useful purpose. For example, delaying the transmission to the server of one event, such as clicking a pushbutton, may help to assure the correct order of distribution of operation content to the plurality of computers for a sequence of operations (see page 34, lines 8-19).

For at least the foregoing reasons, is respectfully submitted that claims 1-4, as well as claims 5, 7-13, 17 and 19 patentably distinguish over the applied reference.

Claims 6, 14-16, 18 and 20 stand rejected under 35 U.S.C. §103(a) as being obvious over Wittsche et al. (U.S. Patent No. 6,567,405), in view of Newman-Wolfe. For reasons that should be apparent from the preceding discussion, it is respectfully submitted that claims 6, 14-16, 18 and 20 patentably distinguish over the applied art combination.

All of the Examiner's objections and rejections having been addressed, it is submitted that this application, as amended, is in condition for allowance. Such action, the passing of this case to issue are respectfully requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Respectfully submitted,

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Date

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